

# WCTE-TV

ORIGINAL

P.O. Box 2040 • Cookeville, Tennessee 38502-2040 • (615) 528-2222

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Fax (615) 372-6284

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August 21, 1997

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

RE: MM Docket No. 87-268  
WCTE-TV, Cookeville, TN

DOCKET FILE COPY ORIGINAL

Dear Mr. Caton:


Enclosed with this letter, please find supportive material relating to educational television station WCTE-TV's request for reconsideration of its currently assigned DTV assignment to channel 52. (Presently, WCTE-TV broadcasts on channel 22.)

The main reasons WCTE-TV requests reconsideration are as follows:

- 1) WCTE-TV (the area's primary educational television provider) has been allocated a DTV channel (channel 52) which is outside the DTV primary core of assignments.
- 2) If WCTE-TV were to reconfigure its transmission facility to DTV channel 52, two sets of multi-million conversion costs would be placed on an already financially-challenged, community-licensed, rural educational TV facility with extremely limited sources for additional resource acquisition.
- 3) MONTHLY estimates for electric bills at the WCTE-TV transmitter would nearly triple if it operated on channel 52...from the current \$6,350 per month to approximately \$18,000.
- 4) WCTE-TV would most likely be forced to cease broadcasting if its yearly transmitting costs went from \$76,200 to 216,000.

While these forecasts may seem a bit dire, they are quite realistic. Please consider WCTE-TV's request favorably.

Sincerely,

  
Kenneth J. Garry  
General Manager

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WCTE-TV, Cookeville, TN  
Exhibit A-p.1

To the Commission;

From Robert A. Huddleston C.E. WCTE-TV

With limited resources available at this time I have caculated the possibility of using our present channel as our DTV channel and based on my findings have determined that it is possible that channel 22 be assigned as our primary DTV channel with our assigned channel 52 as an alternate until test can be made on our antenna and feedline system. If these test prove successful then we would ask that we be allowed to transition from NTSC to full DTV operation.

Thank you very much.

*Robert A. Huddleston*

### **DTV for WCTE-TV Cookeville, TN**

WCTE would like to retain its present NTSC channel ( channel 22 ) as our DTV channel at the end of the transition period.

To do this we ask that the FCC concur that our present channel of operation also be designated as our primary DTV channel and that the currently assigned DTV channel ( channel 52 ) be designated as an alternate channel.

The reasons for this are as follows;

WCTE-TV's present tower windload specifications are at the limit and would require extensive and costly modifications to support another antenna and feedline assembly.

There is a very good possibility that our present antenna and feedline can be used for DTV operation on channel 22. If this proves to be true, our tower and antenna will not have to be changed.

WCTE-TV serves a large geographical area with widely spaced viewers. Funding support from these people is very limited, not because of any lack of support but because the resources available to them are very limited.

WCTE-TV primary purpose is to provide educational programming to the area, to the school systems and the homeschooling homes located in our viewing area.

Formost in our minds is to provide local programming that is tailor-made for our viewers.

To continue to do this we would like to establish a time frame and implemnt the following plan:

(1) Begin testing to insure that our present tower and antenna will support DTV operation.

(2) Begin our DTV operation on a limited basis, 12:00 MN until 6:00 AM with a gradual transition to full operation. This would meet the needs of our educational programming ( daytime ), our local productions ( evenings ), and our transitional programming in the latenight. By doing this WCTE would be in a position to support our viewers' tv set transition by increasing DTV programming as their need and access to DTV services increases, with the final transition to all DTV broadcasting at the end of the period.

Enclosed is an attachment showing that WCTE's operation on channel 22 DTV will meet the requirements for DTV operation.

WCTE-TV, Cookeville, TN  
Exhibit A-p. 3

WCTE and DTV

Below is a listing of the stations ON, Above and Below channel 22 along with the Taboo stations.

Stations operating or assigned to channel 22.

WCTE-TV	NTSC	Cookeville, TN	0 Miles
	NTSC	Pikeville, KY	180 Miles (exceeds 152 Miles)
	DTV	Athens, GA	210 Miles (exceeds 139 Miles)

Stations operating or assigned to channel 21.

DTV	Nashville, TN	80 Miles (exceeds 55 Miles)
DTV	Atlanta, GA	170 Miles (exceeds 55 Miles)
NTSC	Louisville, KY	150 Miles (exceeds 55 Miles)
DTV	Morhead, KY	160 Miles (exceeds 55 Miles)
NTSC	Murry, KY	180 Miles (exceeds 55 Miles)

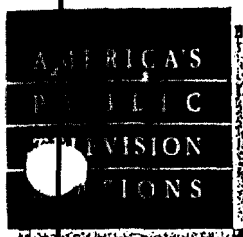
Stations operating or assigned to channel 23.

DTV	Nashville, TN	80 Miles (exceeds 55 Miles)
DTV	Jellico, TN	75 Miles (exceeds 55 Miles)
NTSC	Elizabethtown, KY	110 Miles (exceeds 55 Miles)
NTSC	Dalton, GA	100 Miles (exceeds 55 Miles)

Stations operating or assigned Taboo channels.

14	Campbellsivlle, KY	80 Miles (exceeds 60 Miles)
20	Crossville, TN *****	23 Miles ( see note below )
24	Bowlinggreen, KY	90 Miles (exceeds 60 Miles)
29	Somerset, KY	62 Miles (exceeds 60 Miles)
30	Nashville, TN	80 Miles (exceeds 60 Miles)

\*\*\*\*\* Under normal conditions this station would fall under the Taboo restrictions. The station is not carried on any of the area cable systems at this time. WCTE would operate in a way that will produce no interference.



August 15, 1996

WCTE-TV, Cookeville, TN  
Exhibit B-p. 1

To: APTS & PBS Member Station Managers (Please forward a copy of this memo to your engineers)

From: Marilyn Mohrman-Gillis, APTS  
Gary P. Poon, PBS  
Matt Tietze, PBS

Subject: FCC's Proposed Table of DTV Allotments and Assignments

Executive Summary

Enclosed is a copy of the FCC's Sixth (and final) Further Notice of Proposed Rulemaking released yesterday by the Commission in the nine-year advanced television proceeding. Attached to the Notice as Appendix B is the proposed Table of Allotments and Assignments of digital television (DTV) channels to broadcasters.<sup>1</sup> The Commission has provided the industry with approximately three-month time period to analyze the proposed table and file comments. APTS and PBS plan to file jointly on behalf of their member stations.

We want to stress a few very important points about the proposed table.

- The assignment of new channels to every station is a complex undertaking that has required an incredible investment of personnel and computing resources at the FCC. No single change can be made to the table without the possibility of ripple effects throughout the entire table. Although the Commission will unlikely change the table based on individual filings, it anticipates working with broadcasters in an orderly fashion to make revisions wherever possible, and has proposed a mechanism for both pre-and-post allotment/assignment changes where the agreement of all affected parties can be obtained.
- If there were to be a deluge of individual broadcaster complaints to the Commission about assignments, this would seriously delay the timely assignment of DTV channels to broadcasters (now targeted for the spring of 1997) and the ultimate rollout of digital broadcast services. Such a delay may increase the pressure from Congress to auction channels, or may cause the Commission to revert to its first-come, first-serve lottery proposal. It is our opinion that either of these alternative processes could seriously disadvantage public television.

<sup>1</sup> You may also access the Table and the Notice at the following Internet address:  
<http://www.fcc.gov/oet/headline/fcc96317.html>

B. Future Allotments and Modifications to the DTV Table

97. We request comment on what approach or approaches should be used for the purpose of adding future DTV allotments and modifying the initial DTV Table. Specifically, we request comment on whether an approach that uses minimum geographical spacing distances similar to what is now used for NTSC allotment changes or an approach that uses engineering criteria to show that the new allotment does not cause additional interference to other allotments or stations would be more appropriate for DTV.

98. Geographic Spacing Approach. Spacing standards have proven to be an efficient and effective means for managing interference between NTSC stations and we believe that such an approach could be used to determine the technical acceptability of DTV channel allotments. We note that geographic spacing approach provides considerable flexibility in the specification of station operating parameters such as power and antenna height. Based on the engineering performance characteristics used in developing the initial DTV Table proposed herein, we have developed the following DTV spacing standards. If we adopt a geographical spacing approach, we would propose to permit the addition or modification of DTV allotments provided such allotments meet the following spacing standards.<sup>100</sup>

<u>Channel Relationship</u>	<u>Separation Requirement</u>
VHF Channels 7-13	
Co-channel, DTV to DTV	
Zone I	152 miles (244.6 km)
Zones II & III	170 miles (273.6 km)
Co-channel, DTV to NTSC	
Zone I	152 miles (244.6 km)
Zone II & III	170 miles (273.6 km)

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<sup>100</sup> Proposals for new DTV allotments would also be subject to other requirements and standards for new allotments set forth in Sections 73.610 and 73.611 of our rules, see 47 CFR §§73.610 and 73.611. The DTV to NTSC minimum spacing requirements would apply only during the transition period.

WCTE-TV, Cookeville, TN  
Exhibit B-p. 3

Adjacent Channel		
DTV to DTV		No allotments permitted between:
	Zone I	25 miles (40.2 km) and 60 miles (96.6 km)
	Zones II & III	30 miles (48.3 km) and 60 miles (96.6 km)
DTV to NTSC		No allotments permitted between:
	Zone I	7 miles (11.3 km) and 71 miles (114.3 km)
	Zone II & III	11 miles (17.7 km) and 91 miles (146.4 km)
UHF Channels		
Co-channel, DTV to DTV		
	Zone I	122 miles (196.3 km)
	Zone II & III	139 miles (223.7 km)
Co-channel, DTV to NTSC		
	Zone I	135 miles (217.3 km)
	Zone II & III	152 miles (244.6 km)
Adjacent Channel		
DTV to DTV		No allotments permitted between:
	All Zones	20 miles (32.2 km) and 55 miles (88.5 km)
DTV to NTSC		No allotments permitted between:
	All Zones	6 miles (9.7 km) and 55 miles (88.5 km)
Taboo Channels, DTV to NTSC only		
(+/- 2, +/- 3, +/- 4, +/- 5, +/- 7, +/- 8, +/- 14 and +/- 15 channels)		
	Zone I	15 miles (24.1 km) and 50 miles (80.5 km)
	Zone II & III	15 miles (24.1 km) and 60 miles (96.6 km)

99. Engineering Criteria Approach. To satisfy the engineering allotment criteria, the petitioner would have to show that a station operating at the maximum permissible ERP and antenna height on the proposed allotment would not exceed the engineering interference criteria with regard to any other existing allotment. The engineering criteria would be specified in terms of desired-to-undesired signal ratios and would include consideration of potential interference to a station operating on the proposed allotment as well as potential interference from a station operating on the allotment to stations operating on other allotments. All evaluations of interference would be made under that assumption that stations on the allotments involved would be operating at the maximum allowed power and antenna height. We would use the same propagation models, technical planning factors and DTV system performance characteristics in performing engineering evaluations of interference that